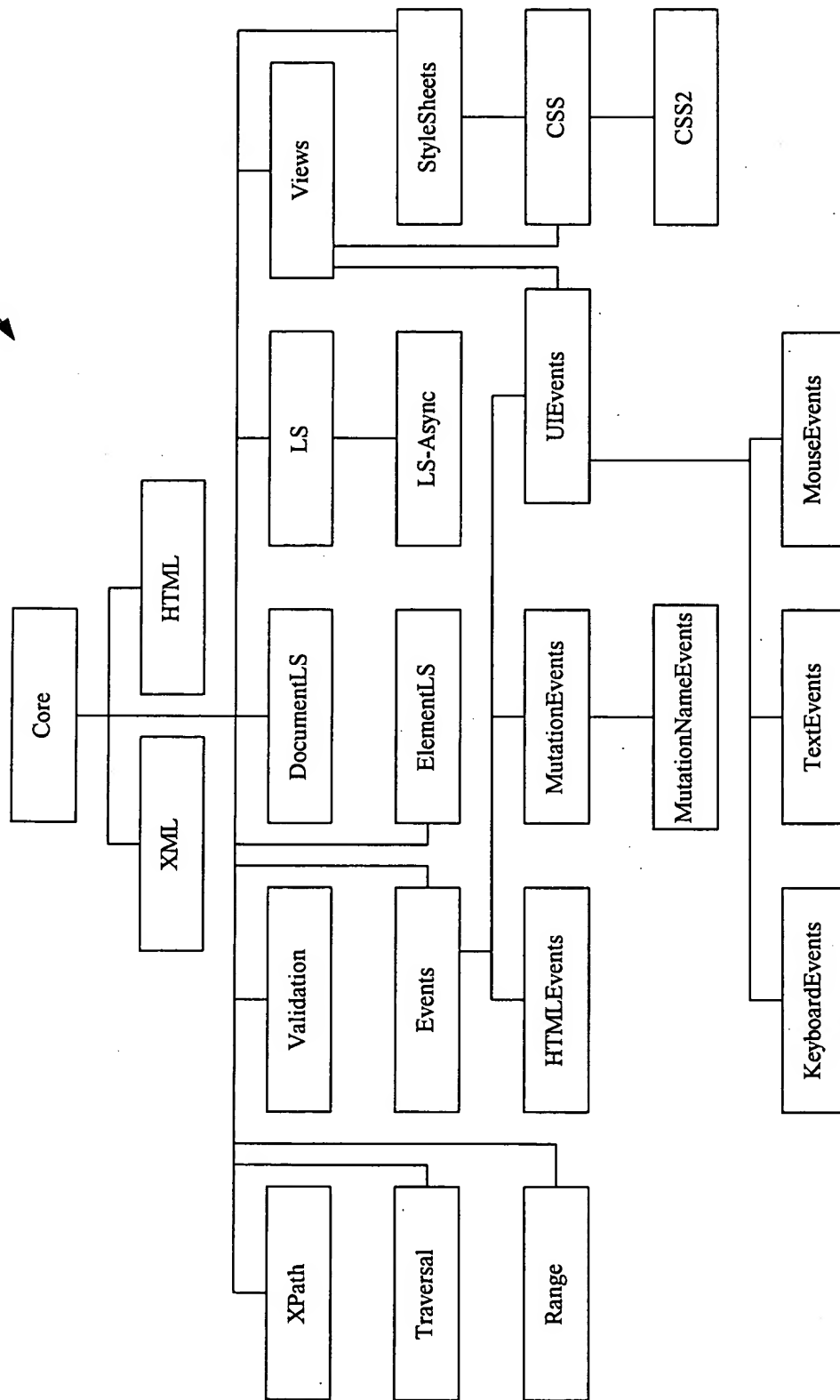
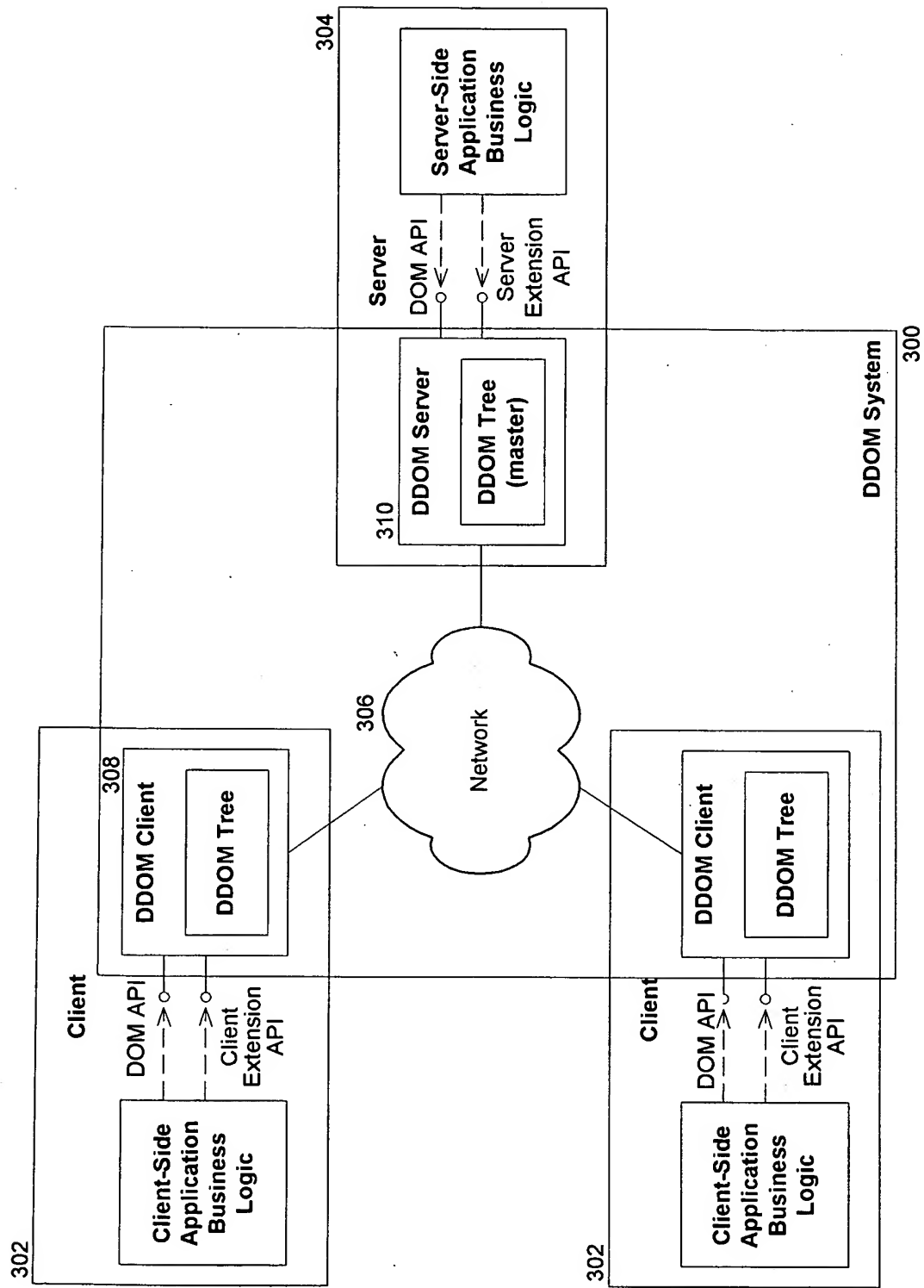


**FIG. 1**

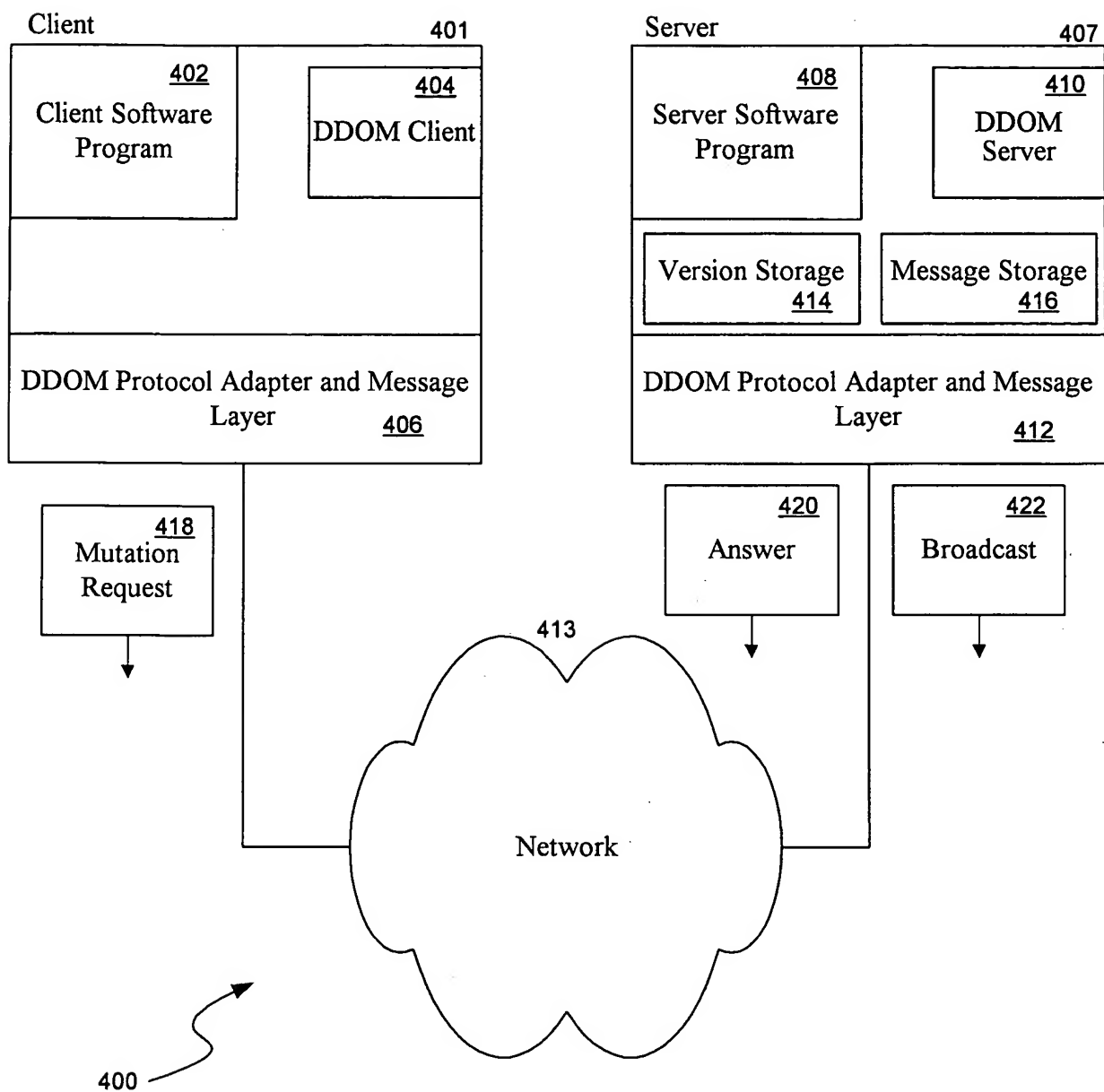
200



**FIG. 2**

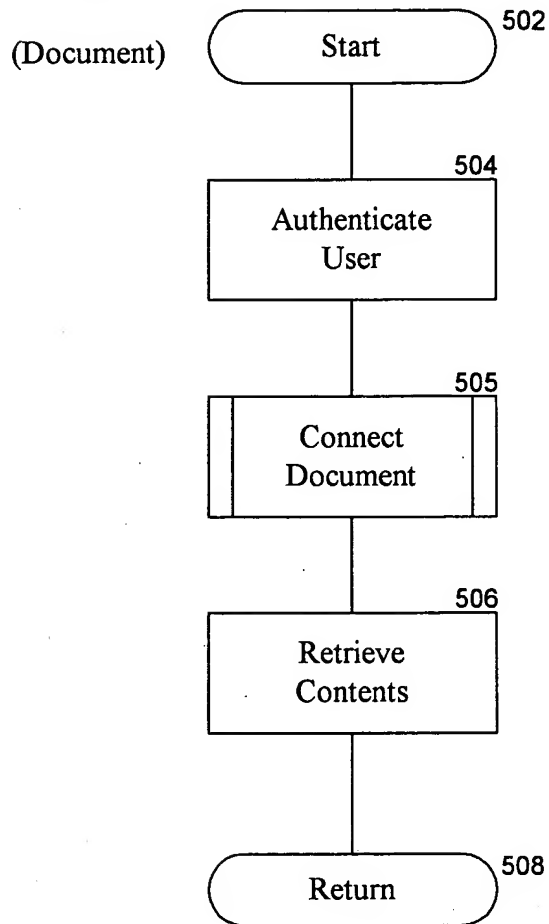


**FIG. 3**



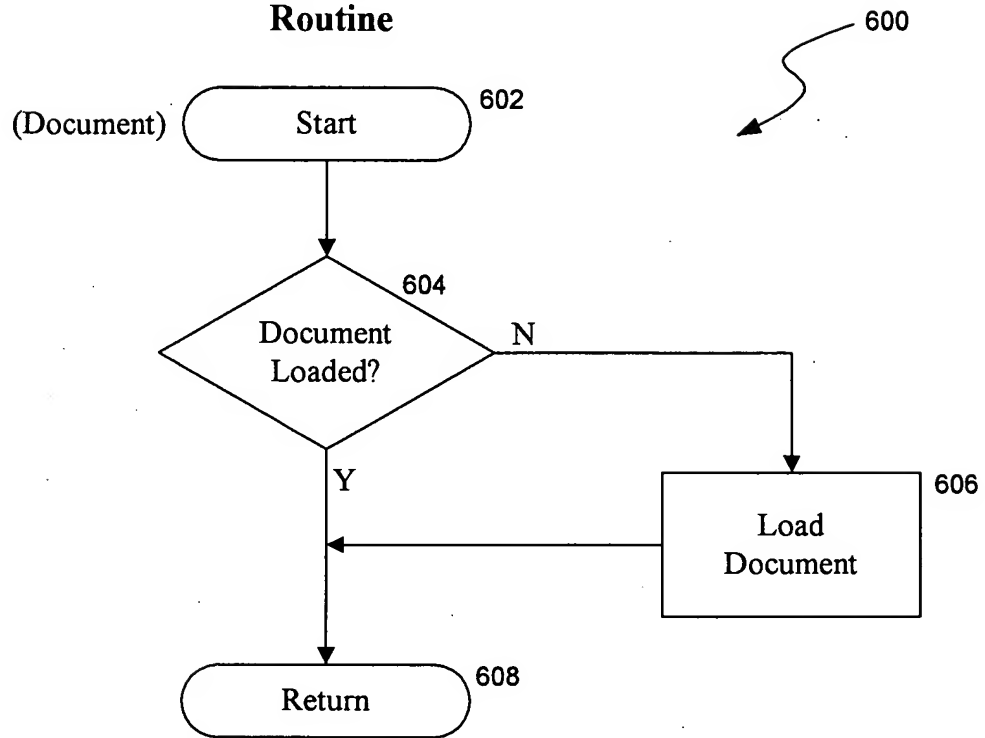
**FIG. 4**

500 **Client: Load Document Routine**



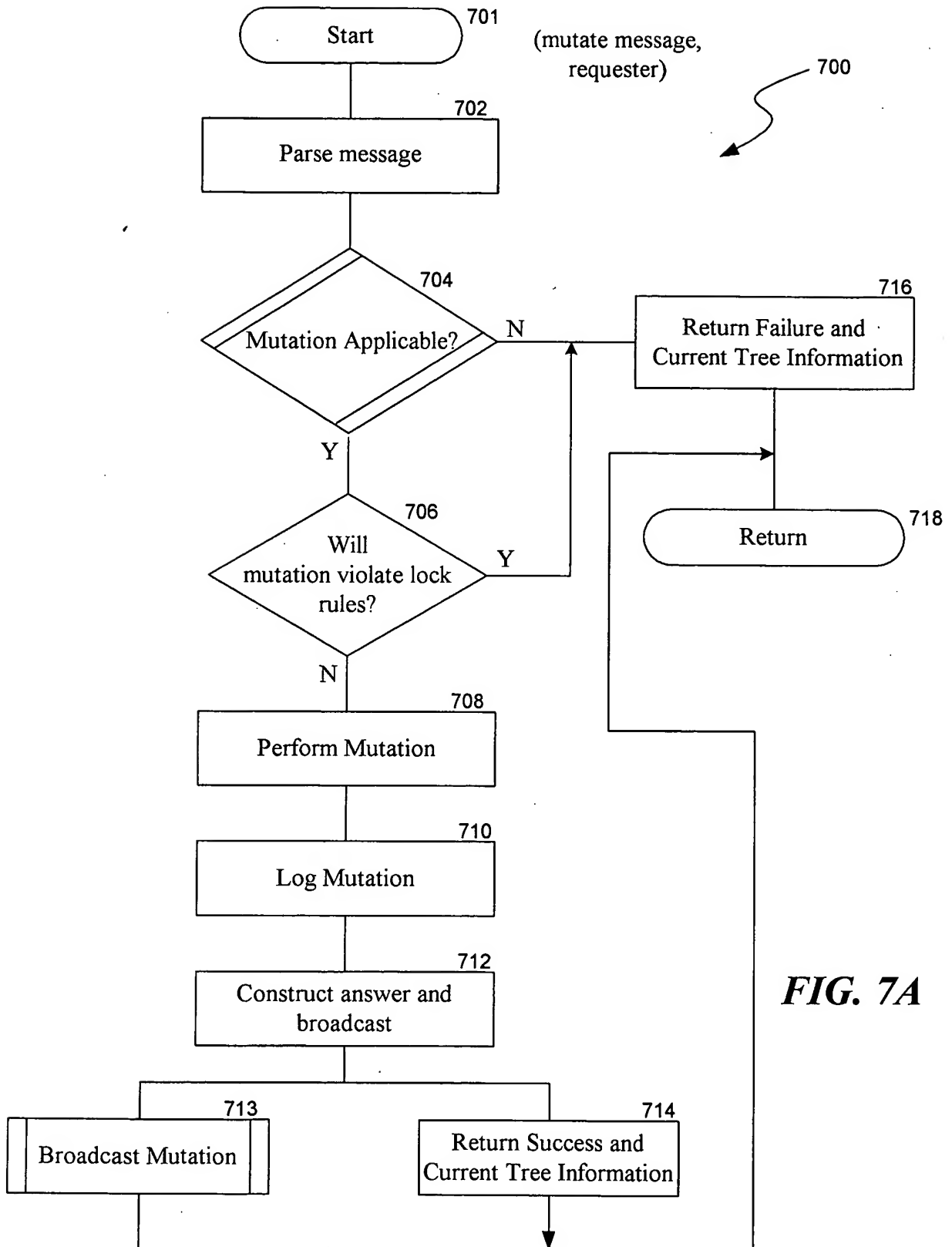
**FIG. 5**

**Server: Connect Document  
Routine**

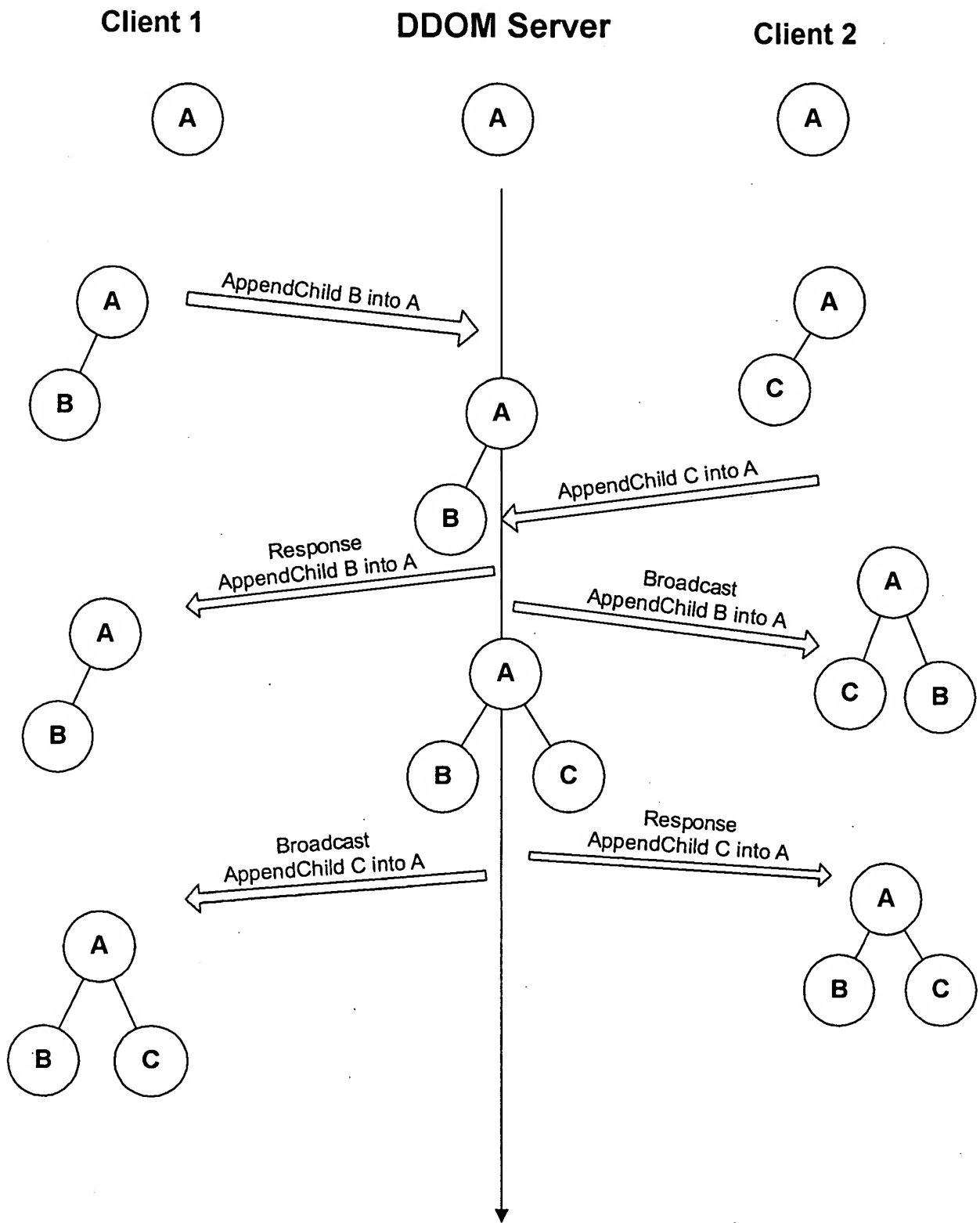


**FIG. 6**

### Server: MutateTree Routine

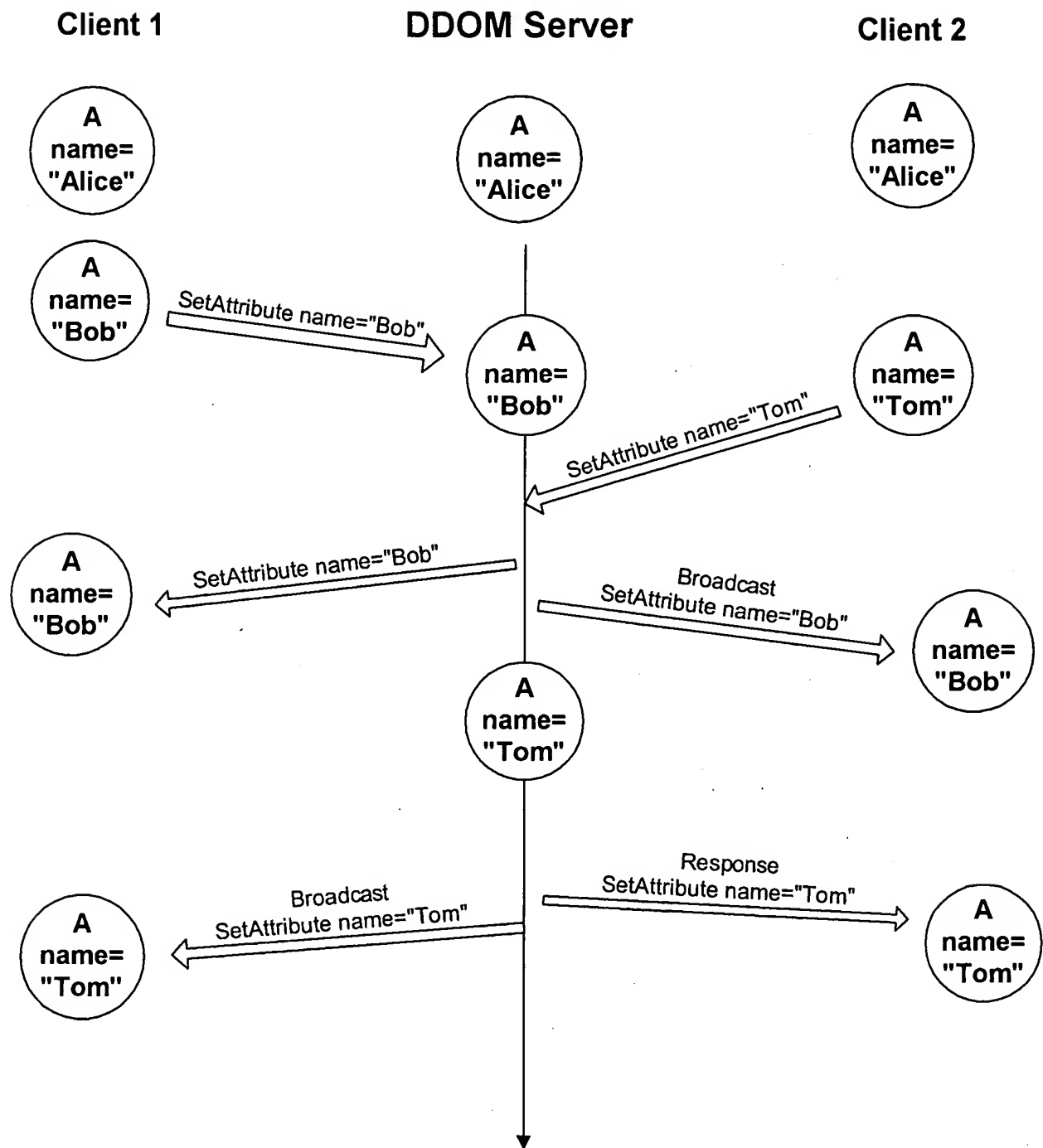


**FIG. 7A**

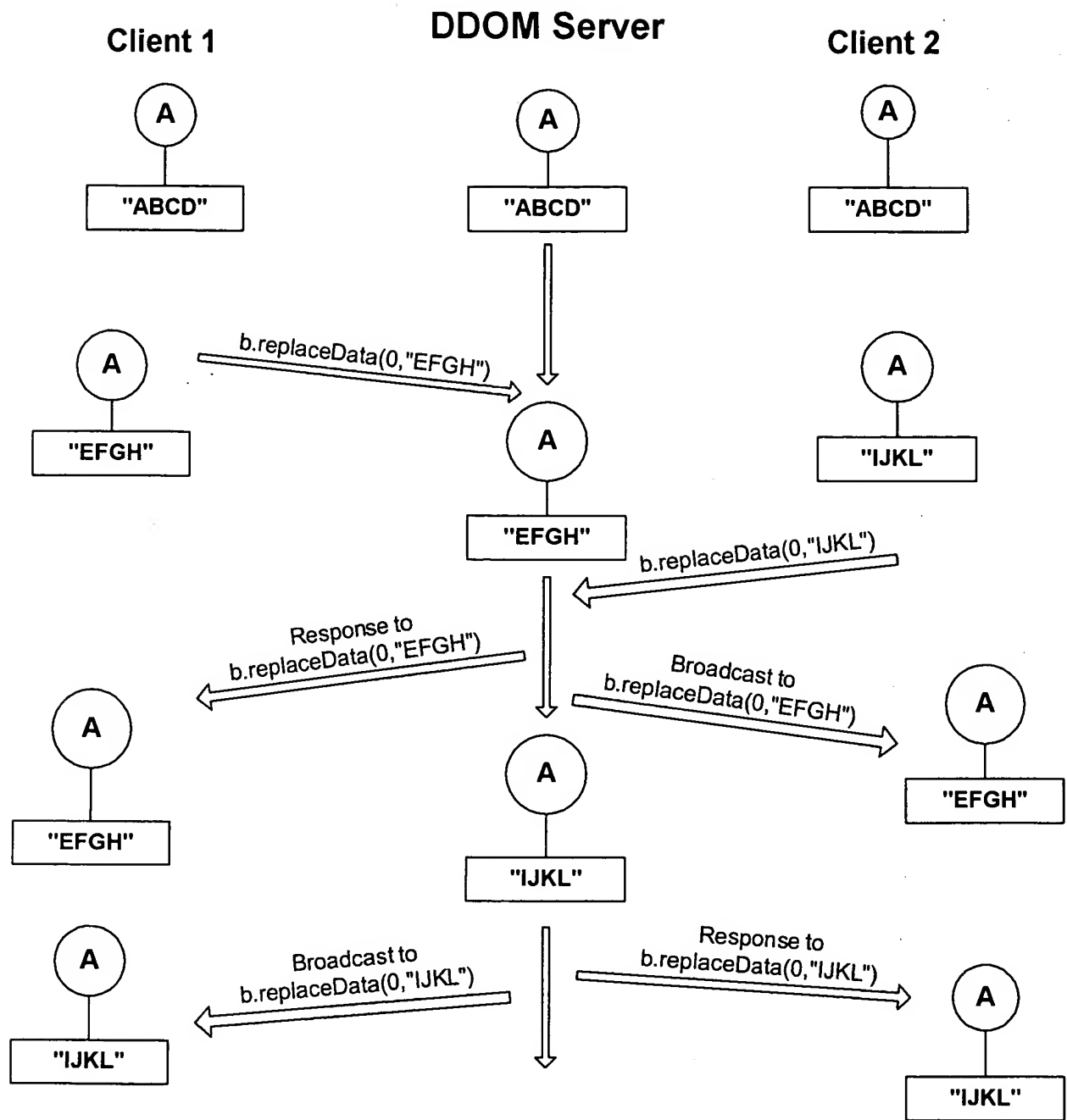


**FIG. 7B**



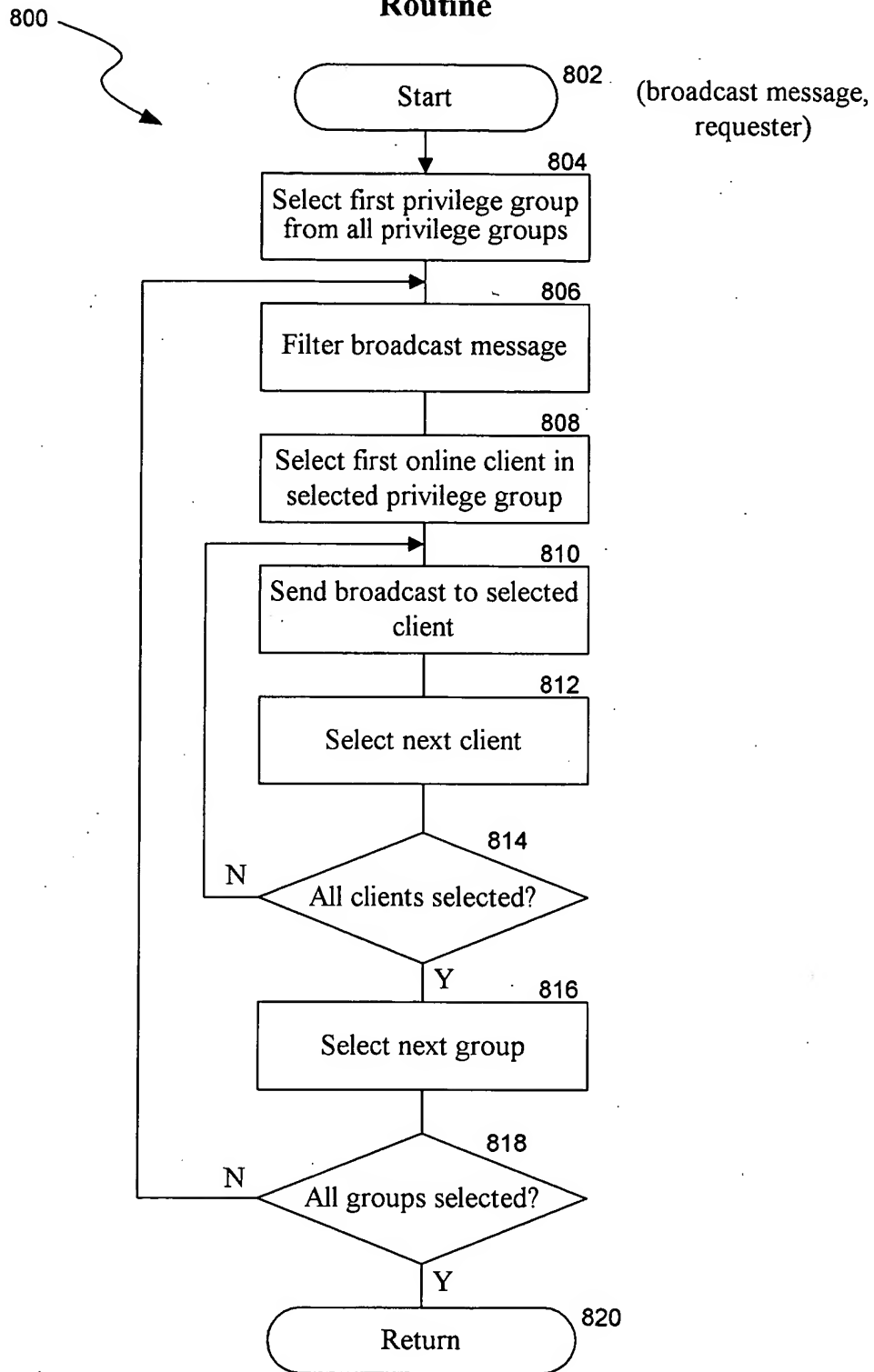


**FIG. 7C**



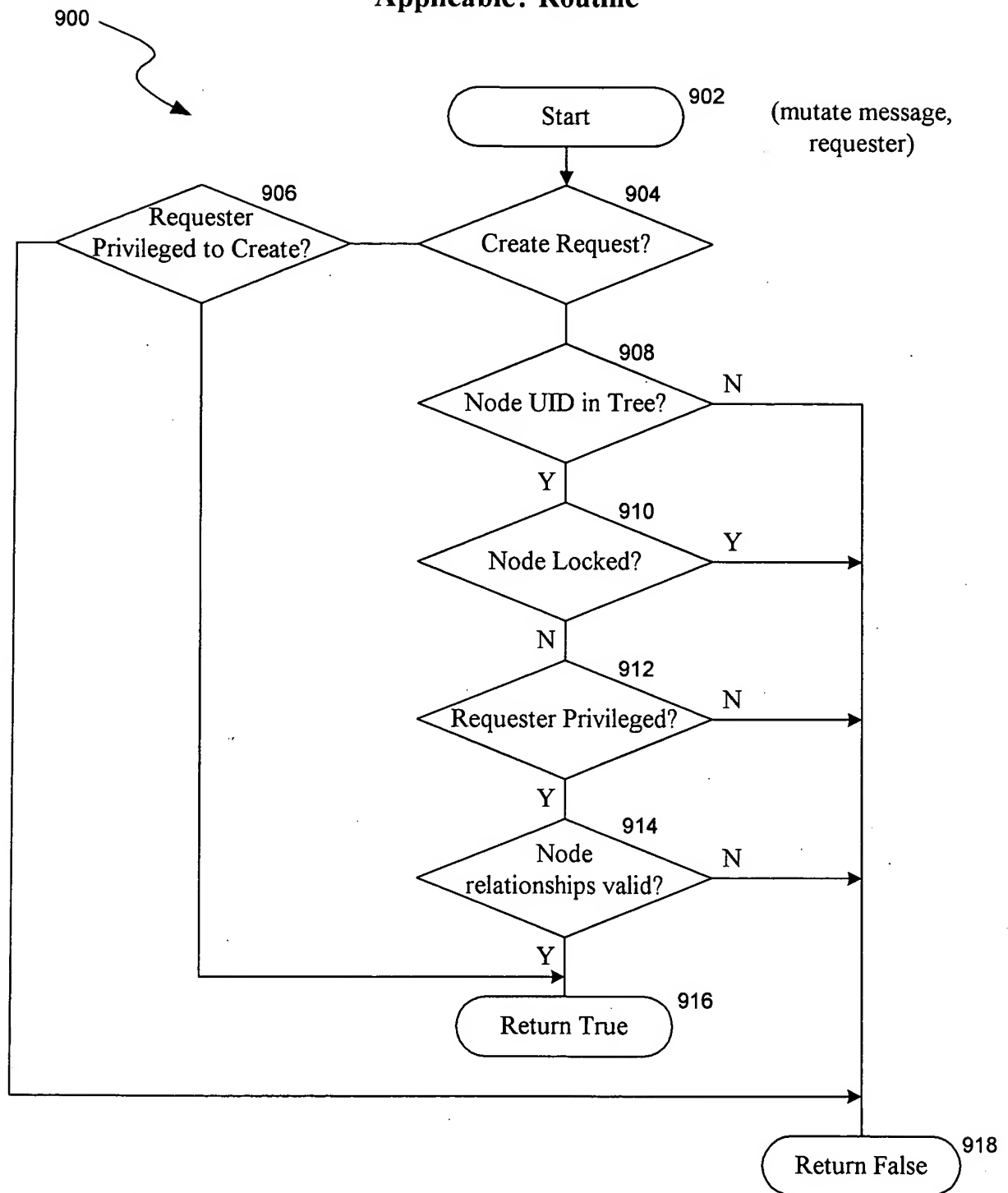
**FIG. 7D**

# Server: Broadcast Mutation Routine



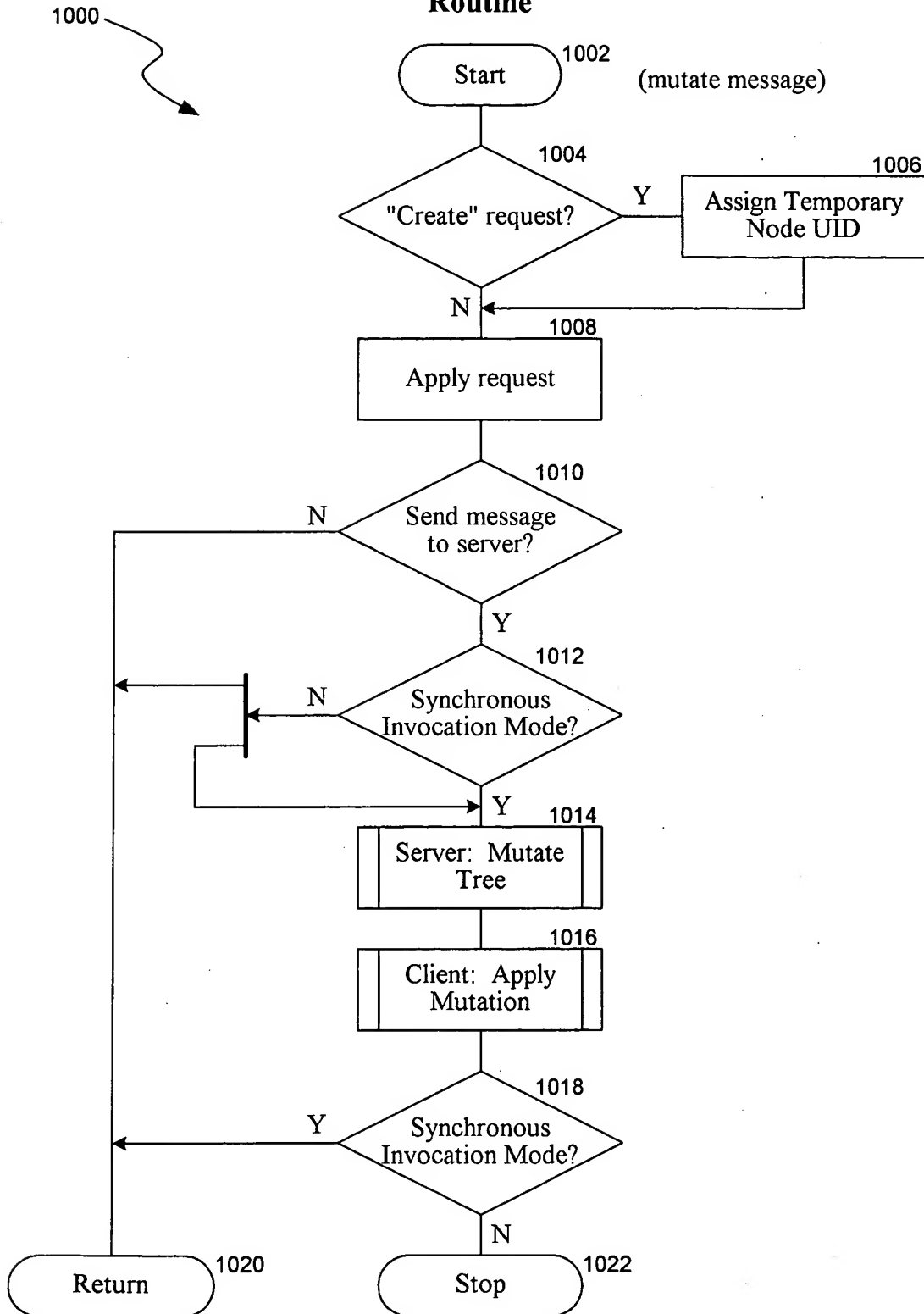
**FIG. 8**

**Server: Mutation  
Applicable? Routine**

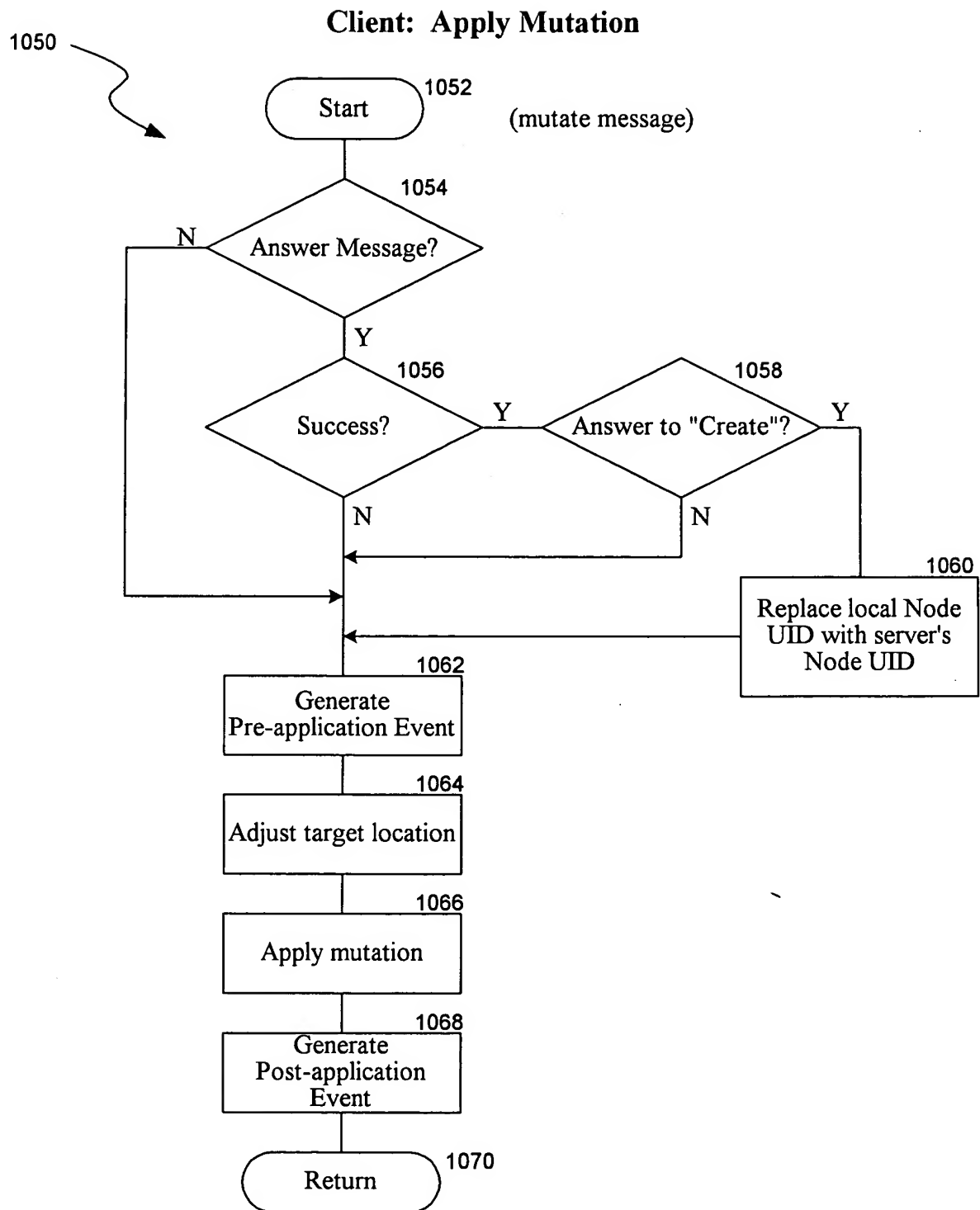


**FIG. 9**

# Client: Mutate Request Routine



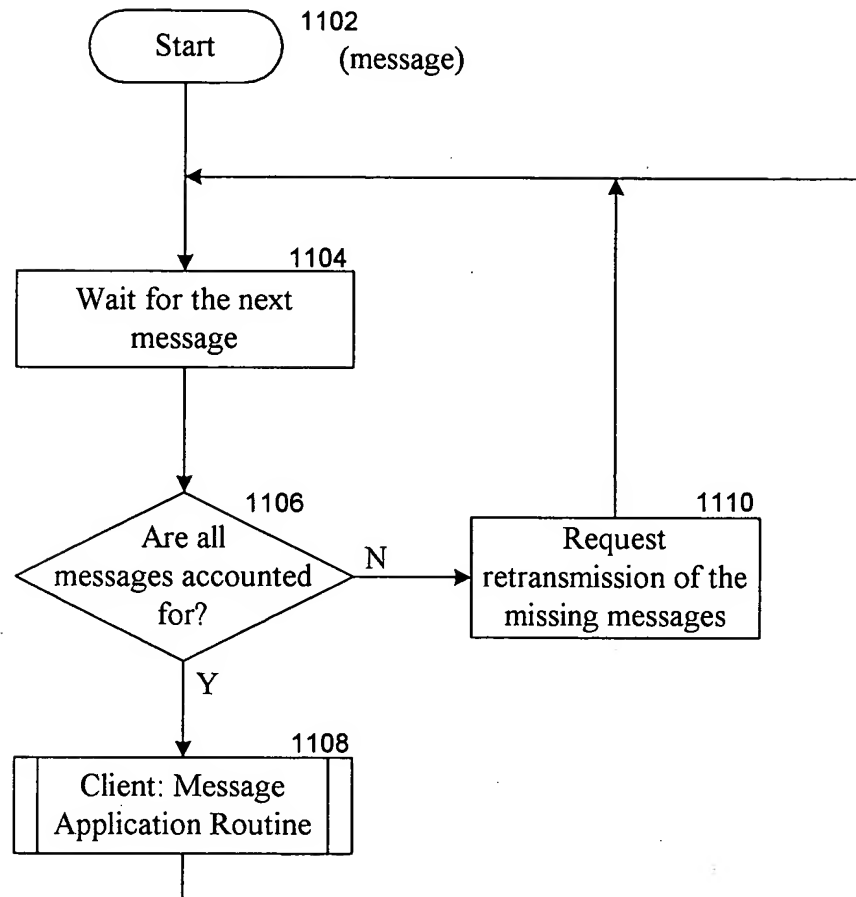
**FIG. 10A**



**FIG. 10B**

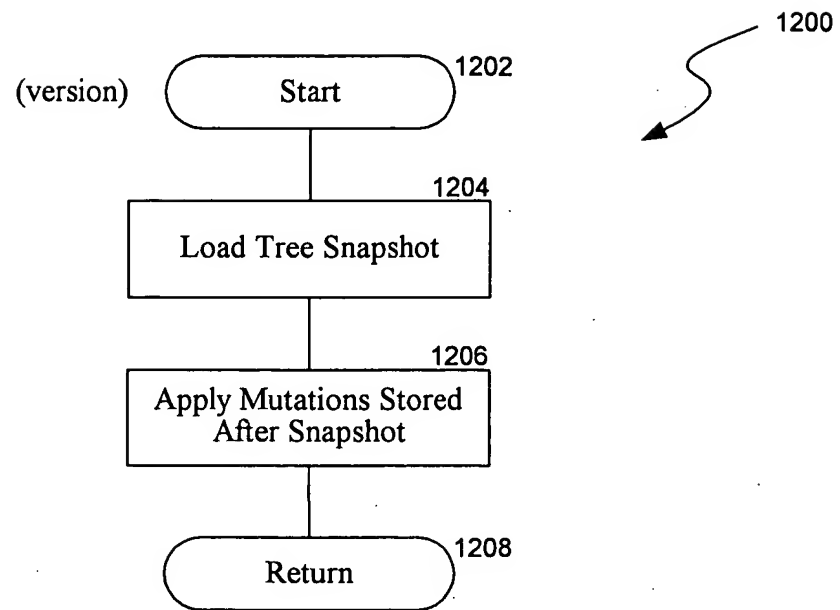
1100

## Client: Receive Message



**FIG. 11**

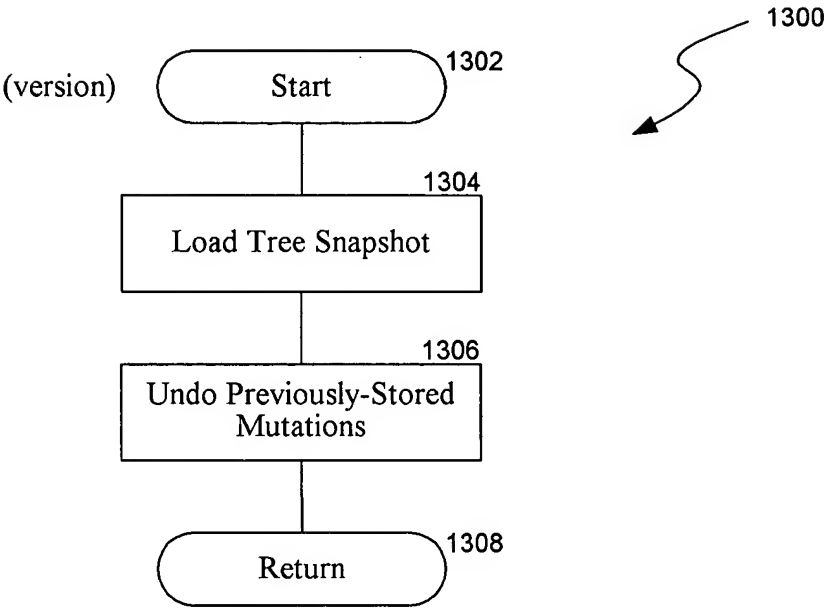
## RollForward Routine



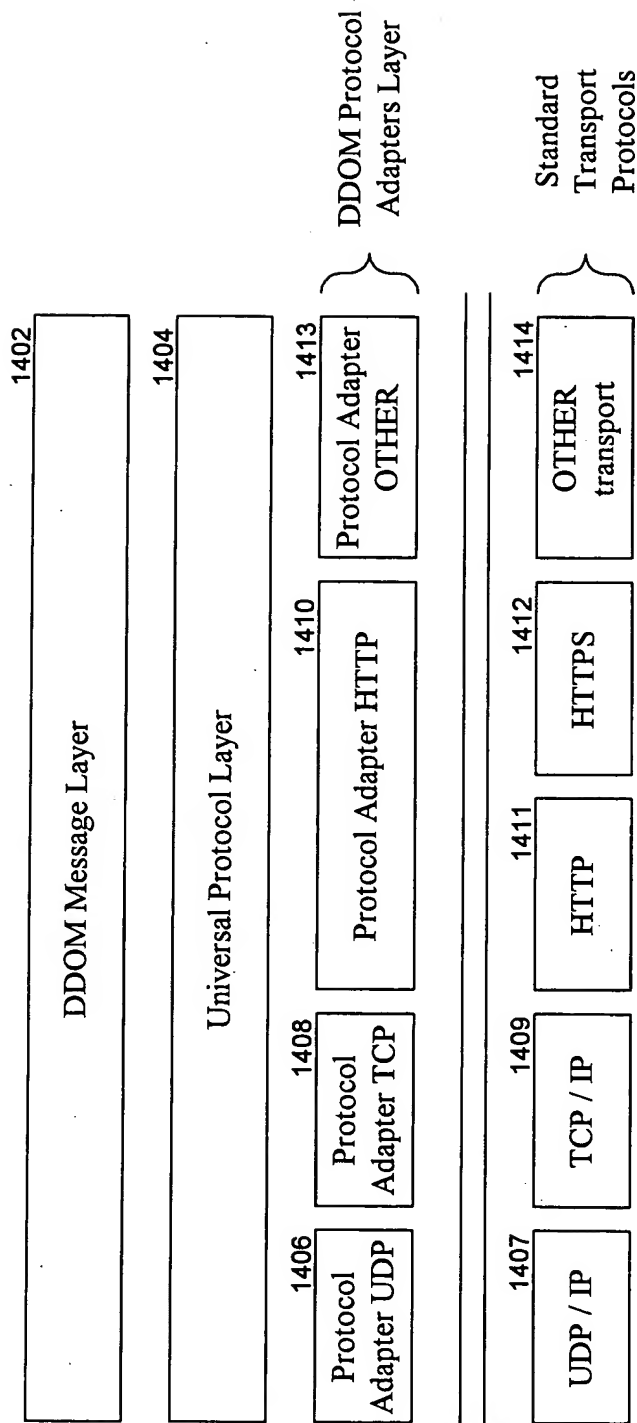
**FIG. 12**



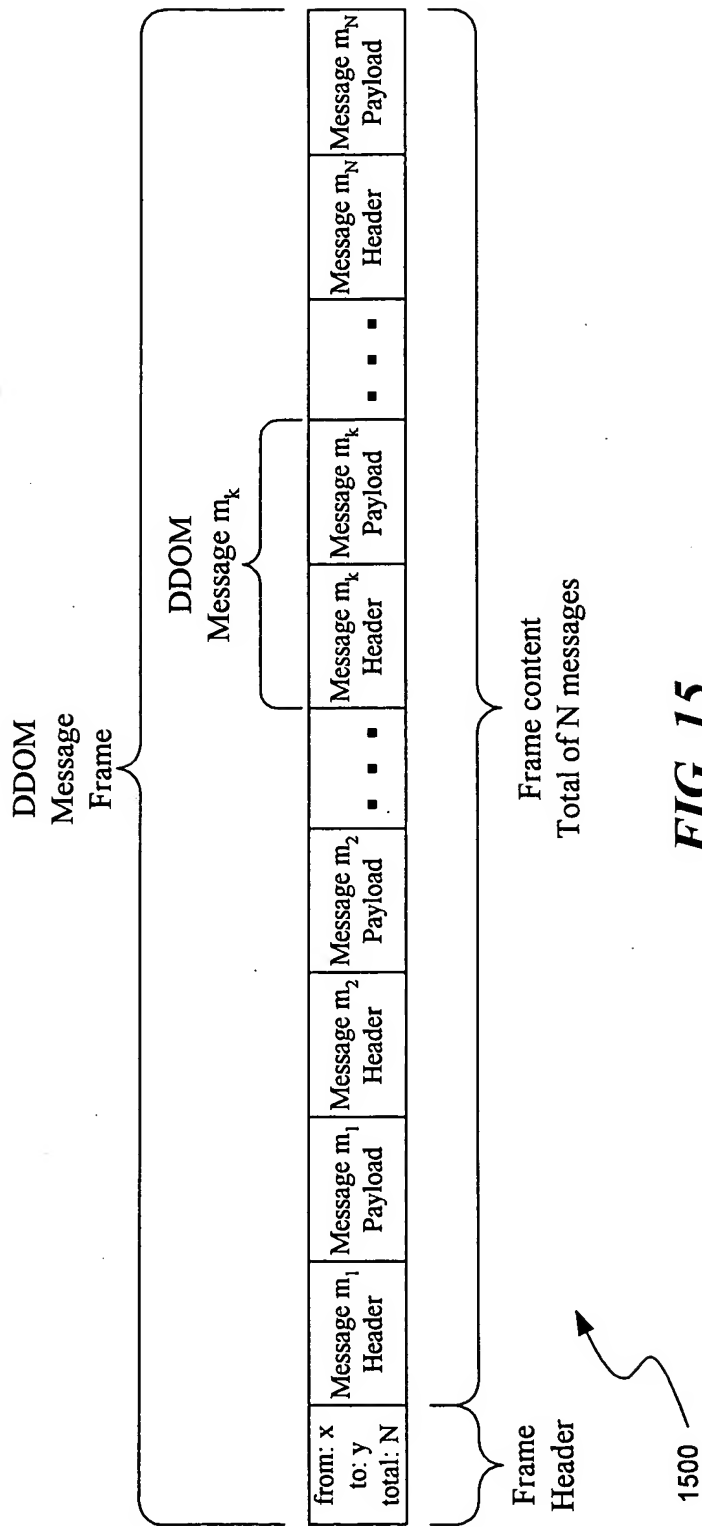
**RollBack Routine**



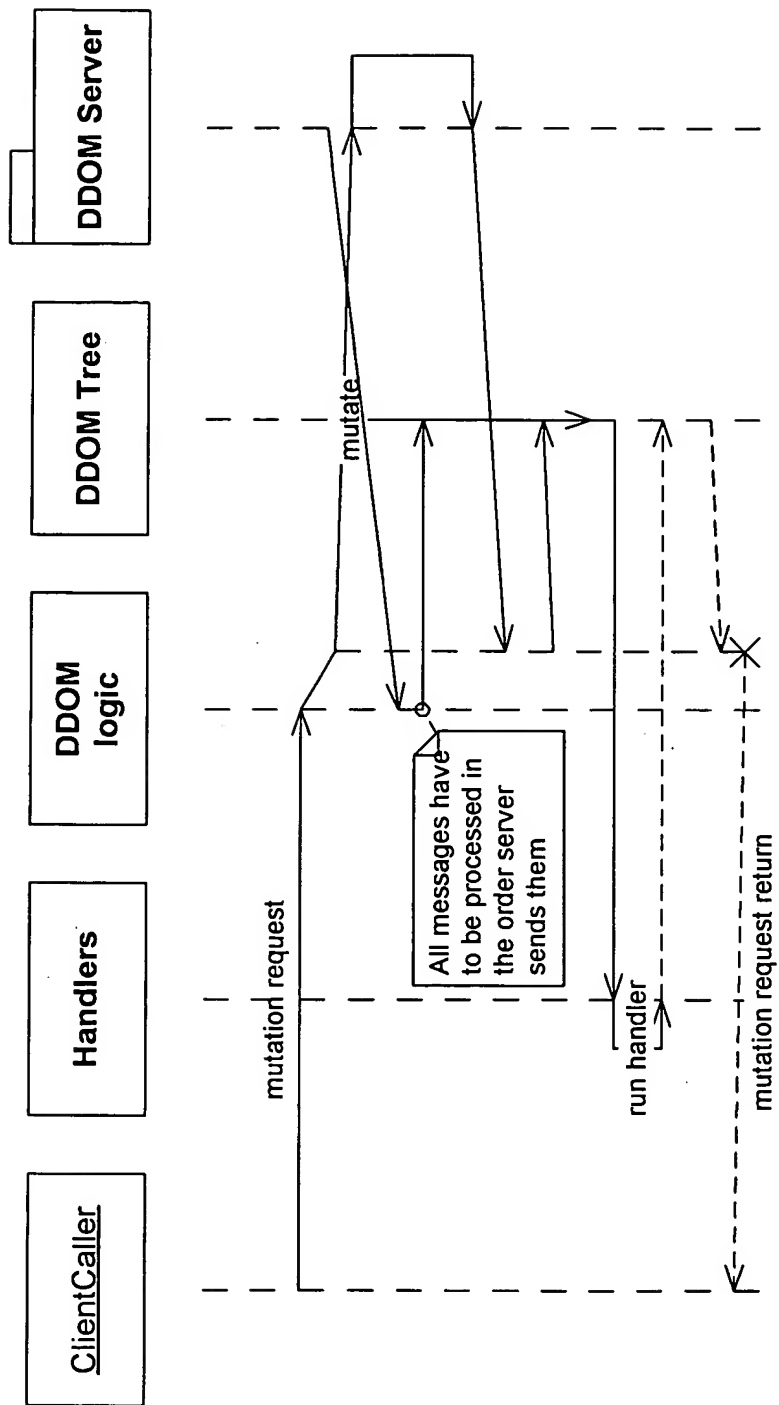
***FIG. 13***



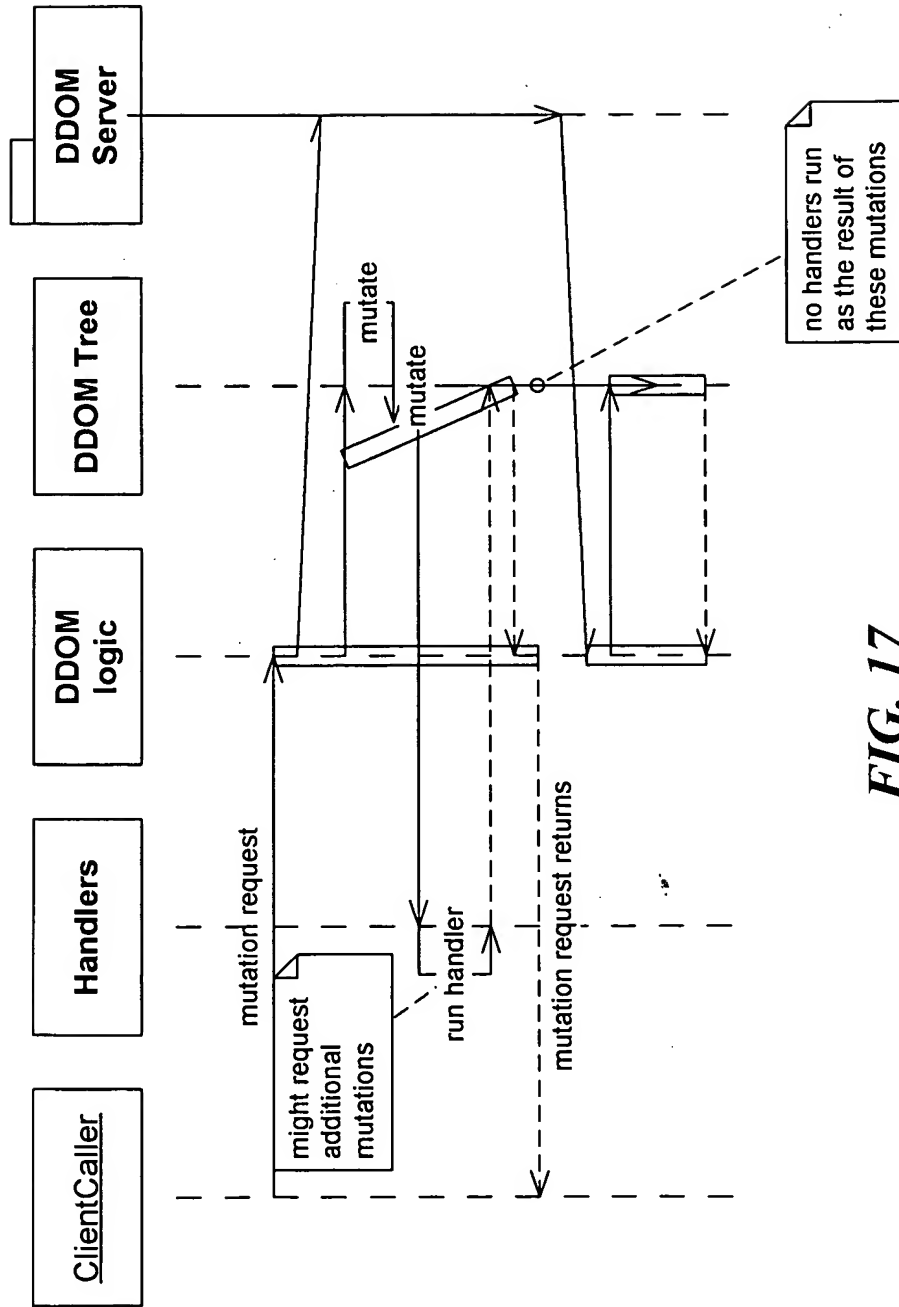
**FIG. 14**



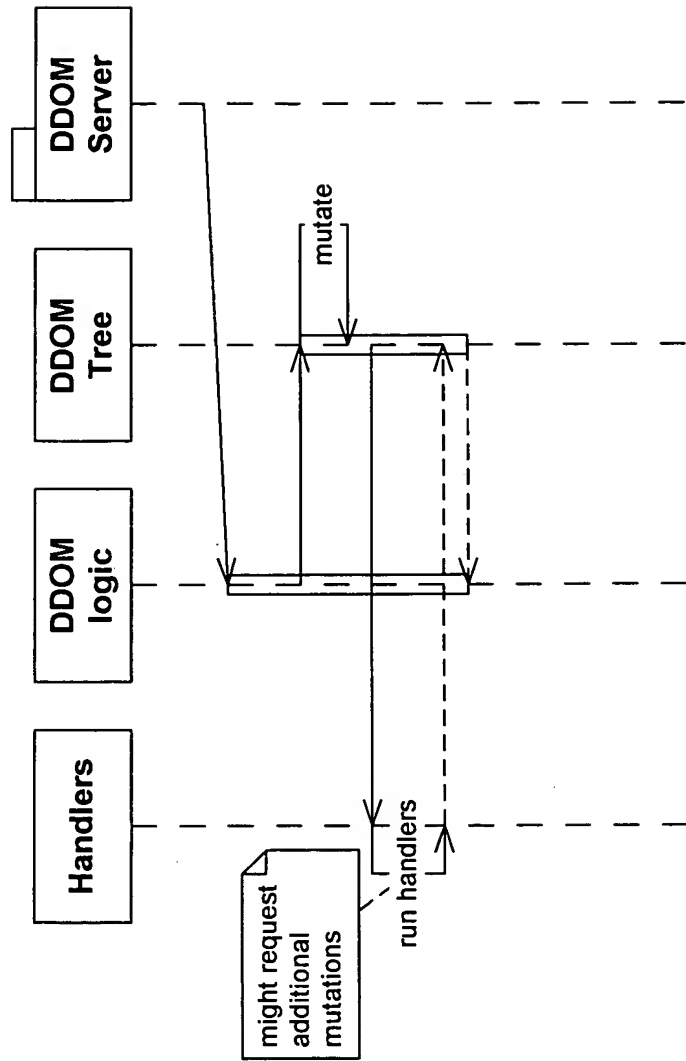
**FIG. 15**



**FIG. 16**



**FIG. 17**



**FIG. 18**